

## 4. MYRMECIZA HEMIMELÆNA.

♂. *Castaneus: dorsi medii pennis basi albis, inde nigris, apice castaneis: capite toto undique et corpore subtus ad medium pectus nigris: ventre medio albido: campterio summo et maculis tectricum alarium apicalibus albis: rostro nigro, pedibus flavis: cauda rufo-castanea unicolore.*

♀. *Obscure olivacea rufo tincta: interscapulii pennis basi albis: dorso postico, alis et cauda rufis: alarum tectricibus nigris, sicut in mari albo aut fulvescenti-albo guttatis: subtus læte ferruginea, pectore et ventre medio pallidioribus: lateribus et crisso rufescenti-olivaceis.*

Long. tota 5·0, alæ 2·4, caudæ 1·7.

*Hab.* In Bolivia (*Bridges*).

*Mus.* Brit.

There are single specimens of both sexes of this bird in the British Museum, which are the only examples I have yet seen. It may be best arranged near *Myrmeciza loricata*, the type of the genus, with which it agrees generally in form, although the tail is comparatively much shorter.

## 5. FORMICIVORA HÆMATONOTA.

*Supra brunnea, dorso medio rubro, hoc colore uropygium versus dilutiore: alarum tectricibus nigris, omnibus macula terminali pallide cervina præditis, secundariorum externarum apicibus eodem colore obsolete terminatis: subtus cinerea, gula nigra maculis triangularibus albis aspersa: ventris lateribus et crisso pallide brunneis: cauda unicolore brunnea: rostro nigro, pedibus brunneis.*

Long. tota 4·0, alæ 2·0, caudæ 1·2.

*Hab.* Chamicurros in ripis fl. Huallaga in Peruv. Orient. (*Hauwell*).

*Mus.* Brit.

*Obs.* Similis *F. gulari* (Spix, Av. Bras. ii. t. 41. f. 2) sed dorso medio rubro nec cinnamomeo, et colore subtus dilutius cinereo dignoscenda.

## 2. ON THE SPECIES OF CROCODILUS INHABITING THE RIVERS KWÓRA AND BÍNUË (NIGER AND TSADDA) IN CENTRAL AFRICA. BY DR. BALFOUR BAIKIE, F.R.Geog.S. &amp;c.

Among the Zoological collection which I made during my visit to the rivers Kwóra and Bínuë in 1854, were several skulls of Crocodiles, varying in length from 14 to 26 inches. A careful comparative examination of these shows them all to be possessed of similar characters; but on attempting to refer them specifically, I have experienced considerable difficulty, their proportional measurements not agreeing with any hitherto described. Two African species of *Crocodilus* are already known,—*C. vulgaris*, the Nilotic or Egyptian

Crocodile, and *C. marginatus* of Southern Africa. Of these, according to the best recent authority, namely Dr. Gray, the characters are,—

*C. vulgaris*.—“Head elongate, triangular, flat, smoothish above, narrow, tapering at the sides, nearly twice as long as the width of the head behind; muzzle at the notch nearly two-thirds the width of the forehead, at the ninth tooth as wide as half the distance between the eyes and nostrils; forehead flat, with nearly parallel sides.”

*C. marginatus*.—“Head elongate, triangular, rather convex, rounded, sides slightly swollen behind the notch, half as long again as the width of the head behind; muzzle at the first notch as wide as the forehead, and at the ninth tooth as wide as two-thirds the distance between the eyes and nostrils; forehead deeply concave, with the sides high, prominent and nearly parallel; dorsal plates very strongly keeled.”

I shall now describe generally the skulls which I brought home, giving the measurements of four of them; from which it will be seen, that while in various prominent points they more resemble the latter, yet in proportional measurements they approach more nearly to, while not altogether agreeing with, *C. vulgaris*, thus showing that in many characters they are intermediate, and thus either lowering these two into mere varieties, or what is, I believe, more probable, establishing for themselves specific characters.

“Head elongate, oblong, somewhat triangular, rather convex, especially posteriorly, rounded, upper surface rough, sides distinctly swollen behind the notch; length more than twice the width of head behind; forehead slightly concave, sides not prominent, converging anteriorly; muzzle at notch nearly two-thirds the greatest width of forehead; at the ninth tooth more than two-thirds the distance between the eye and nostrils.”

#### Measurements.

	No. 1.	No. 2.	No. 3.	No. 4.
	in.	in.	in.	in.
Extreme length . . . . .	26	24 $\frac{1}{2}$	22 $\frac{1}{2}$	21
Greatest width behind . . . . .	12 $\frac{3}{4}$	12	11 $\frac{1}{8}$	10 $\frac{1}{4}$
Distance from eye to nostril . . . . .	10 $\frac{3}{4}$	10	9	8 $\frac{3}{4}$
Breadth at ninth tooth . . . . .	7 $\frac{3}{4}$	6 $\frac{1}{2}$	6 $\frac{1}{4}$	5 $\frac{3}{4}$
Breadth at notch . . . . .	4 $\frac{1}{4}$	3 $\frac{3}{8}$	3 $\frac{5}{8}$	2 $\frac{3}{4}$
Width of forehead, anteriorly . . . . .	5	4 $\frac{1}{2}$	4 $\frac{1}{8}$	4
Width of forehead, posteriorly . . . . .	6 $\frac{1}{2}$	5 $\frac{3}{4}$	5 $\frac{1}{4}$	5
Extreme length of lower jaw . . . . .	29	27	24 $\frac{1}{2}$	—

The proportions of all these correspond almost exactly, and I have ascertained the proportional measurements of a smaller one to be the same, although from its being in pieces and not yet put together, I have not time to take the exact dimensions. They show the Crocodile from the Bînuë to be proportionally longer than *C. vulgaris*, and much more so than *C. marginatus*, to be in form of upper surface and of forehead near the latter, but without the prominent sides to

the forehead,—also in breadth at the ninth tooth to agree with *C. marginatus*, while the converging shape of the forehead differs from both.

I shall add some few other general characters derived from these skulls:—Cranial fossæ somewhat oblong and ear-shaped, converging anteriorly, and almost touching by their inner and anterior margins, the outer side being nearly straight. Orbits with a slight notch anteriorly. Nasal foramen broadly pyriform, and almost quadrilateral. Foramina for the two anterior teeth converted in old specimens into deep notches. Articulating extremities of lower jaw much curved inwards.

I have compared these skulls with twelve others of Indian and American species, from all of which they are quite distinct.

The ninth upper tooth of Crocodiles is said to be enlarged like a canine, but this is not strictly correct. I have examined the dentition in eighteen skulls of various species; in the lower jaw there are always nineteen teeth, but in the upper jaw the number in the adult is seventeen on either side, while in the young it is eighteen. This is owing to the second incisor being deciduous, and in old skulls the socket is completely obliterated by the enlargement of foramen for the two anterior teeth. Thus in old animals there are only four teeth in each intermaxillary bone, while in younger individuals there are always five. So, more strictly, it is the tenth and not the ninth upper tooth which is enlarged.

The characters which I have above enumerated seem to me distinctive, and possibly on further investigation, when the entire animal is examined, and its external characteristics determined, it may prove a new species. The Crocodiles which I saw on the mud banks, or swimming about in the river, appeared of a dark green colour. Adanson mentions two apparently from the upper parts of the Niger, which he distinguished—"Crocodile vert du Niger" and "Crocodile noir du Niger." Whether either of these resembles my specimens I have no means of ascertaining; but Cuvier speaks of African Crocodiles "qui ont la tête un peu plus allongée à proportion de sa largeur," though he adds, "et un peu plus plate, ou plutôt moins inégale, à sa surface." If this prove to be separate I would suggest for it the specific designation *C. Binuensis*, from the name of the river whence I obtained the specimens.

### 3. DESCRIPTIONS OF FOUR UNDESCRIBED SPECIES OF BATS. BY ROBERT F. TOMES.

#### 1. SCOTOPHILUS PACHYOMUS, n. s.

*Muzzle rather obtuse; ears ovoid; tragus short, of nearly uniform breadth, and round at the end. Wing-membranes extending to the base of the toes. Fur bicoloured. Size rather larger than S. noctula.*

This species appertains to the same division of the genus as *S.*